DOCUMENT RESUME

ED 297 873 PS 017 509

AUTHOR Weikart, David P.
TITLE Research and Related Issues: Interactive Instructional Model.
PUB DATE Jun 87
NOTE 6p.; In: The Lipman Papers: Appropriate Programs for Four-Year-Olds; see PS 017 508.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Comparative Analysis; *Cost Effectiveness; *Curriculum Evaluation; Early Childhood Education; Educational Quality; Longitudinal Studies; *Preschool Curriculum; *Preschool Education; *Program Effectiveness
IDENTIFIERS High Scope Preschool Curriculum Study; Perry Preschool Project

ABSTRACT

This presentation reports outcomes of the Perry Preschool Project (PPP) and the High/Scope Preschool Curriculum Study (H/SPCS). The PPP is an ongoing study that in 1962 began to follow 123 black youths who were at risk of failing in school. The study explored the long-term effects on the youth of participation versus nonparticipation in a program of high quality early childhood education, the High/Scope Curriculum. Information about these youngsters on hundreds of variables was collected and examined annually when they were 3 to 11 years old, and again when they were 14, 15, 19, and 28. The H/SPCS was a study that began in 1967 and involved 3- and 4-year-old children at risk of failing. For purposes of comparison, children were assigned to one of three theoretically distinct curriculum models that differed regarding the degree of initiative expected of child and teacher: the Distar programmed learning approach, the High/Scope Curriculum open framework approach, and a nursery school's child-centered approach. Longitudinal data on 54 participants in their 15th year suggested that curriculums do have social consequences for students. For example, a highly significant rate of juvenile delinquency was reported by the Distar group in contrast to the other two groups. It is concluded that effective programs of high quality offer methods that work, but will not by themselves solve social problems. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED297873

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Research and Related Issues: Interactive Instructional Model

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Rosestelle B. Woolner
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

David P. Weikart
High/Scope Educational Research Foundation

This presentation describes the Perry Preschool Project which is an ongoing study that began in 1962 of 123 black youths who were at risk of failing in school. The study explored the long-term effects on these young people of participation versus non-participation in a program of high quality Early Childhood Education.

The Role of Intervention on Intellectual and Social Development of Children

The available evidence suggests part of any solution to the prevention of major social and personal problems in adults is to provide high quality preschool child development programs to them when they are young. This idea for prevention first became popular among leading educators and social scientists in the 1960's and led to the establishment of National Head Start. It also led to a variety of experimental programs and, in accord with the spirit of the times, to a limited number of scientific evaluations of the effectiveness of these programs. Despite some early findings (Westinghouse Learning Corporation, 1969) and some recent echoes (McKey, Condelli, Ganson, Barrett, McConkey, & Plantz, 1985) that cast doubt on the overall efficacy of the National Head Start program, the findings of carefully drawn studies of preschool child development programs suggest a possible pattern of causes and effects that stretches from early childhood into adulthood (Berreuta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984).

Poor children are likely to perform poor as they enter school because they have not developed to the same extent as their middle-class peers the skills, habits, and attitudes expected of children in kindergarten and first grade; this lack of development is manifested in low scores on tests of intellectual or scholastic ability. Children who have not developed in this way may be developmentally advanced in other respects not relevant to school success. Their lack of preparedness for school, however, can lead to unnecessary (that is, preventable) placement in special education or retention in grade, low scholastic achievement, and eventually dropping out of high school. Poor children who attend good preschool child development programs become better prepared in skills, habits, and attitudes expected of them in kindergarten and first grade. Thus, they begin a more successful career in school and into adult life. Perhaps the best known of these early intervention programs is High/Scope Foundation's Ypsilanti Perry Preschool Project (Berrueta-Clement, et al., 1984).

Ypsilanti Perry Preschool Project

The Perry Preschool Project is an ongoing study begun in 1962 of 123 black youths, from families of low socioeconomic status, who were at risk of failing in school. The purpose of the study is to explore the long-term effects on these young people of participation versus non-participation in a program of high quality early childhood education. Drawn from a single school attendance area at ages 3 and 4, these youngsters were randomly divided into an experimental group that received a high quality preschool program and a control group that received no preschool program. Information about these youngsters on hundreds of variables has been collected and examined annually from ages 3 to 11, and again at ages 14, 15, 19, and now at age 28 -- assessing family demographics; child abilities and scholastic accomplishments; and involvement in delinquent and criminal behavior, use of welfare assistance, and employment.

Curriculum

The Perry Preschool Project used the High/Scope Curriculum ((Hohmann, Banet, & Weikart, 1979) and it will serve as an example of the content of an early education program. Organized about Piagetian ideas, the fundamental premise of the curriculum is that children are active learners and construct their own knowledge from activities they plan and carry out themselves. This concept of active learning revolves around everything done in the curriculum from teacher training to parent involvement. Such an approach

PS 018 003

BEST COPY AVAILABLE

implies a consistent daily routine because the children have to be able to institute the plans and ideas that they have. This adherence to routine gives the children control of their time necessary to develop a sense of responsibility and to enjoy the opportunity to be independent. In the High/Scope Curriculum the daily routine is a plan-do-review sequence that incorporates clean-up time and small and large group activities. This cycle permits children to make choices about their activities and keeps the teachers involved in the whole process. Planning gives children a consistent opportunity to express their ideas to adults and to see themselves as individuals who can make and act on decisions. Children experience the power of independence and the joy of working with attentive adults and peers.

The "do" part of the plan-do-review sequence occurs after the child has finished planning. Since children are responsible for executing their plans, adults do not lead work-time activities. The adult's role during work time is to observe how children gather information, interact with peers, and solve problems, and, second, to enter into the child's activities to encourage and set up problem-solving situations.

The final phase of the plan-do-review cycle gives children an opportunity to represent their work time experiences in a variety of developmentally appropriate ways. They can draw pictures or make models of what they did, review their plan or verbally describe the activities that were undertaken.

From the teacher's point of view, the High/Scope Curriculum is organized around key experiences which provide a framework that guides adults in conducting the classroom program. With a focus on key experience, teachers are freed from the standard lesson sequences or activity charts.

Results

The long-term study of these 123 youngsters, following them from program entry at age 3 to young adulthood at age 19, has provided important information on the impact of early education on future growth. On the whole, early childhood education significantly alters the child's performance in later life.

Results to age 19, comparing those who attended preschool and those who did not, can be summarized as follows:

In education --

Fewer classified as mentally retarded (15% vs. 35%)
More completed high school (67% vs. 49%)
More attended college or job training programs (38% vs. 21%)

In the world of work --

More hold jobs (50% vs. 32%)
More support themselves by their own, or spouse's, earnings (45% vs. 25%)
More are satisfied with work (42% vs. 26%)

In the community --

Fewer arrested for criminal acts (31% vs. 51%)
Lower birth rate (64 vs. 117 per 100 women)
Fewer on public assistance (18% vs. 32%)

Economic Outcomes

The cost-benefit analysis of the Perry Preschool program indicates that such programs can be a good investment for taxpayers. On the basis of a careful analysis of 15 years of follow-up data, this program showed a very positive value to taxpayers (Berrueta-Clement, et al. 1984, and Barnett, 1984).

The major cost of the program (in constant 1981 dollars, discounted at 3 percent annually) is the initial investment of about $5,000 per participant per program year. (It is important to note that this cost

figure includes items of school operation that are usually overlooked such as building depreciation, clothing, volunteers, etc.) Major benefits found for the taxpayers were reduced costs per participant of about $5,000 for special education programs, $3,000 for crime, and $16,000 for welfare assistance. Additional post-secondary education costs by participants added about $1,000 to costs. Participants were expected to pay $5,000 more in taxes because of increased lifetime earnings (predicted from their improved educational attainment).

Thus, total benefits to taxpayers amount to about $28,000 per participant, which is nearly six times the initial cost of the one-year program, or three times the cost of the two-year program. The return is large enough that even a two-year program that was only half as effective as the program studied would still yield a positive return on investment. The savings from reduced costs for special education alone are enough to return to taxpayers an amount equivalent to the cost of a one-year program.

Quality in Early Childhood Education

The research findings cited above are not an endorsement of all early childhood programs. There is no intrinsic value in a young child's leaving home for a few hours a day to join another adult and a group of children. Program quality must be carefully defined and maintained or a preschool classroom or child care center is just another place for a child to be. The effects of preschool programs have been found for high quality child development programs only.

High quality programs is a dynamic concept. It is not a matter of teaching degrees or even financial or material resources, but the continued focus on the use of staff skills implementation that produces the results.

It was this issue of defining quality that the High/Scope Preschool Curriculum Study addressed (Schweinhart, Weikart, & Larner, 1986). In short, is one curriculum approach more effective than another?

The High/Scope Preschool Curriculum Study

The ongoing High/Scope Preschool Curriculum Study began in the public schools of Ypsilanti, Michigan in 1967. It served children three and four years old who lived in families of low socioeconomic status and who, according to test scores, were at risk of failing in school. The children were assigned to one of three curriculum models by a random-assignment procedure designed to ensure the comparability of the groups. The curriculum models all operated under similar administrative conditions and adhered to high standards of quality: a clearly articulated curriculum, ongoing training and supervision of staff, highly trained teachers, low teacher-pupil ratios, extensive parent involvement, adequate resources, and so on.

The curriculum models used in the project represented three major theoretically distinct approaches to preschool programs. They differed with respect to the degree of initiative expected of the child and the teacher--whether the child's and the teacher's primary roles were to initiate or respond.

The programmed-learning approach, in which the teacher initiates activities and the child responds to them, was represented by the direct-instruction preschool program developed by Bereiter and Engelmann (1966) and later published as Distar. In this approach, classroom activities are clearly defined academic skills with forceful positive child management procedures.

The open-framework approach, in which teacher and child both plan and initiate activities and actively work together, was represented by the High/Scope Curriculum (Hohmann, et al., 1979). Developed in the Perry Preschool Project, classroom activities revolve around key experiences intended to promote intellectual and social development. The underlying psychological theory is cognitive-developmental, as exemplified in the work of Jean Piaget.

The child-centered approach, in which the child initiates and teacher responds, was represented by a nursery school program that incorporated the elements of what has historically constituted good nursery school practice. In this approach, classroom activities are the teacher's responses to the child's expressed needs and interests, and the teacher encourages children to actively engage in free play.

Of the sixty-eight youngsters in the program, fifty-four were interviewed at age fifteen -- a retention rate of 79 percent. Previous data collections from ages three to ten, which took place either in the preschool program or in the school, had retention rates of 90 percent or better. Comparison of these characteristics of the remaining sample at age fifteen to the original sample characteristics indicates that the age-fifteen sample was virtually equivalent to the original sample in every respect.

On self-report ratings of social behaviors, there were clear-cut and significant differences between the Distar group on one hand and the High/Scope and nursery school groups on the other. The average member of the Distar group at age fifteen engaged in thirteen self-reported delinquent acts (girls, fourteen; boys, twelve), the average nursery school group member engaged in seven (girls, seven; boys, seven), and the average High/Scope member engaged in five (girls, four; boys, eight). On all but one item of the eighteen-item scale, the Distar group reported the highest frequency, or was tied for the highest frequency, of the three groups. On the delinquency scale, then, the Distar group reported a highly significant rate of juvenile delinquency when compared to the other two groups.

Curriculum groups at age fifteen did not yet manifest statistically significant differences in official contact with the police. Regardless of curriculum group, half the members of the sample reported having been picked up or arrested by police by age fifteen; the average sample member reported contact with the police 5 times, while average self-reported delinquency acts for the total sample was 8. In the Perry Project, police arrests "caught up" with self-reported delinquency by age nineteen.

Curriculum group members at age fifteen reported on family relations, activities, school behavior and attitudes, and mental health. Corroborating the juvenile delinquency reports of the Distar group, the few group differences found in these areas suggest greater problems experienced by the Distar group as compared to the other two curriculum groups. For example, one out of three members of the Distar groups said their families felt they were doing poorly, a response made by only one out of thirty-six members of the other two curriculum groups combined.

To summarize the group differences among the children at age fifteen, then, more of the Distar group members reported they were not socially well adjusted, compared to both the High/Scope and the nursery school groups. Clearly, these data from this longitudinal, small sample study suggest that there are social consequences to curriculum choice.

It is poor public investment policy to finance preschool programs at per-child levels insufficient to provide high quality programs. With limited funds, it is probably better to provide high quality programs to some children than to provide inferior programs to a larger number of children. This has been the constant dilemma of the National Head Start project, which now serves only one in five eligible children. But if quality is sacrificed in order to serve more children, the value of the program for all the children may be seriously undermined.

If a preschool program is to promote child development intellectually, socially, and physically, it must be conducted to meet high standards of quality by competent child development professionals who establish a non-directive environment that supports active learning by the child. To meet this criterion, a child development program should have the following characteristics of staffing, curriculum and child and family services:

- a non-directive curriculum model, derived from principles of child development, that has been evaluated and found to have positive intellectual and social outcomes

- two adults from each classroom group and a classroom enrollment limit of no more than 20 children

- teaching staff who are early childhood specialists, with bachelors' degrees in early childhood development; child development associate credentials (usually a two-year degree), or equivalent; or staff intensely supervised by an experienced curriculum specialist

- support systems to maintain the curriculum model, including curriculum leadership administration, curriculum-specific inservice training, supervision and evaluation procedures, and teaching staff assignments that permit daily team planning and evaluation of program activities

- collaboration between teaching staff and parents as partners in the education and development of children, including frequent communication and substantive conferences

- sensitivity and responsiveness to the child's health and nutrition needs and family needs for child care or other services

With the enthusiasm of the newly converted, state governments and cities have rushed to use the power of early education to reduce social problems (see the booklet titled Preventing Unemployment: A Case for Early Childhood Education from the Mayor's office in Minneapolis to see the extent of their thinking). Business has also become committed (see the two publications of the Committee for Economic Development, Investing in our Children (1985) and Children in Need (1987), to guage the extent). The field of early childhood education, however, must help the public understand that high quality programs are not only expensive but that they are only part of the solution. Alone, such services will not solve social problems of teen pregnancy, unemployment, etc. High quality early childhood education has something of great value to offer: methods that work. It is a major service to children, their families, and society that we can offer.

References

Barnett, W. S. (1984.) A benefit-cost analysis of the Perry preschool program and its long-term effects. Ypsilanti MI: High/Scope Press.

Bereiter, C., & Engelmann, S. (1966). Teaching the disadvantaged child in the preschool. Englewood Cliffs, NJ: Prentice-Hall.

Berrueta-Clement, J. R., Schweinhart, L. J., Barnett, W. S., Epstein, A.S., & Weikart, D.P. (1984) Changed lives: The effects of the Perry preschool program on youths through age 19. (Monographs of the High/Scope Educational Research Foundation, 8). Ypsilanti, MI: High/Scope Press.

Committee for Economic Development. (1985). Investing in our children. New York: Author.

Committee for Economic Development. (1987). Children in need: Investment strategies for the educationally disadvantaged. New York: Author.

Hohmann, M., Banet, B., & Weikart, D. P. (1979). Young children in action: A manual for preschool educators. Ypsilanti, MI: High/Scope Press.

McKey, R. H., Condelli, L., Ganson, H., Barrett, B., McConkey, C., & Plantz, M. (1985). The impact of Head Start on children, families and communities. (Final Report of the Head Start Evaluation, Synthesis and Utilization Project) Washington, D. C.: CSR.

Minneapolis Community Business Employment Alliance. (1985). Preventing unemployment: A case for early childhood education. Report on future employability. Minneapolis: Author.

Schweinhart, L. J., Weikart, D. P. & Larner, M. B. (1986). Consequences of three preschool curriculum models through age 15. Early Childhood Research Quarterly, 1, 15-45, National Association for the Education of Young Children.

Westinghouse Learning Corporation. (1969). The impact of Head Start: An evaluation of the effects of Head Start on children's Cognitive and affective development (Vols. I-II), Athens, OH: Ohio University.